Abstract

A method and device are provided that allow computation of multiple modulus conversion (MMC) outputs using little or no division operations. Instead of division operations, multiplication and logical shift operations are used to produce pseudo-

5   quotients and pseudo-remainders, which may be corrected in a final step to produce correct MMC outputs. This allows for more efficient implementation, since division is typically less efficient than multiplication and logical shift. The method and device operate on MMC inputs that may be partitioned into sub-quotients of varying numbers of digits in any numbering system. The multiplication and logical shift operations are

10   performed on each of the sub-quotients according to a procedure derived from long-division techniques.